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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,457	06/28/2001	Kenichi Sameshima	010825	2154
23850	7590	03/16/2004	EXAMINER	
ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP 1725 K STREET, NW SUITE 1000 WASHINGTON, DC 20006			SHOSHO, CALLIE E	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 03/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/892,457

Applicant(s)

SAMESHIMA ET AL.

Examiner

Callie E. Shosho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/30/03 has been entered.

2. All outstanding rejections except for those described below are overcome by applicants' amendment filed 12/30/03.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2 and 4-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Gerber (U.S. 5,294,649).

Gerber discloses composition comprising phenolic resole, powdered or granulated magnesium oxide or magnesium hydroxide, and ammonium thiosulfate. The composition is

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hardened or cured at 15-49 °C and can also be thermally cured either before or after the hardening at 77-100 °C. The magnesium oxide or magnesium hydroxide and ammonium thiosulfate are present, based on amount of resole, in amounts of 5-40% and 0.01-5%, respectively, which overlap the amounts presently claimed (col.1, lines 19-22, col.5, lines 45-55 and 61-66, col.6, lines 34-35, col.7, lines 60-64, col.9, line 51, col.11, lines 56-59, col.12, lines 45-46 and 53, and col.14, lines 53-57).

In light of the above, it is clear that Gerber anticipates the present claims.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-2 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper (U.S. 2,869,194) in view of Meyer (U.S. 4,264,760).

Cooper discloses phenol-formaldehyde composition comprising 64-94.4% resole and 5-36% powdered magnesium oxide (col.1, lines 15-16, col.3, lines 53-63, col.5, lines 43-46, and Table 2). From instant claim 5, it is calculated that the present composition comprises 0.99-99% resole, 0.86-99% alkali earth metal oxide or hydroxide, and 0.0009-13% salt. Thus, the amounts of resole and magnesium oxide disclosed by Cooper fall within the presently claimed range.

The difference between Cooper and the present claimed invention is the requirement in the claims of ammonium thiosulfate.

Meyer disclose the use of 0.3-30% ammonium thiosulfate with phenol-formaldehyde in order to reduce the release and odor of formaldehyde while producing composition with optimum properties (col.1, lines 8-18, col.3, lines 5-10, 32-33, and 45-47, and col.4, lines 1-5).

In light of the motivation for using ammonium thiosulfate disclosed by Meyer as described above, it therefore would have been obvious to one of ordinary skill in the art to use ammonium thiosulfate in composition of Cooper in order to reduce the release and odor of

formaldehyde while producing composition with optimum properties, and thereby arrive at the claimed invention.

Response to Arguments

8. Applicants' arguments regarding Engen et al. (U.S. 5,551,961) have been fully considered but they are moot in view of the discontinuation of the use of this reference against the present claims.

9. In the amendment filed 10/31/03, applicants argue that while Gerber disclose accelerator comprising anion and cation, thiosulfate is but one of 13 anions disclosed by Gerber et al. while ammonium is but one of a large list of cations disclosed by Gerber et al. Further, applicants note that Gerber et al. specifically recites 9 salts but does not include ammonium thiosulfate as presently claimed.

However, as set forth in MPEP 2131.02, when a compound is not specifically named, but it is necessary to select portions of teachings within a reference and combine them, anticipation can only be found if the classes of substituents are sufficiently limited or well delineated, *Ex parte A*, 17 USPQ2d 1716 (Bd. Pat. App. & Inter. 1990). If one of ordinary skill in the art is able to "at once envisage" the specific compound within the generic claimed formula, the compound is anticipated. One of ordinary skill in the art must be able to draw the structural formula or write the name of each of the compounds included in the generic formula before any of the compounds can be "at once envisaged".

This portion of the MPEP is directly applicable to the rejection of record with respect to Gerber et al. Given that Gerber et al. disclose small number of anions, i.e. 13, and cations, i.e. 8,

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and given that one of ordinary skill in the art would be able to write the name of each of the accelerators disclosed by Gerber et al., it is clear that one of ordinary skill in the art would be able to "at once envisage" the specific accelerator presently claimed, namely, ammonium thiosulfate.

Thus, it is the examiner's position that the claims are properly anticipated with respect to Gerber et al.

Further, it is noted that the present claims have been amended to recite "consisting essentially of" transitional language. However, it is the examiner's position that Gerber is still applicable against the present claims.

Gerber disclose composition comprising phenolic resole, powdered or granulated magnesium oxide or magnesium hydroxide, and ammonium thiosulfate. There is no requirement in Gerber of ingredients which would fall outside the scope of the "consisting essentially of" transitional language. While Gerber does disclose the use of ester hardening agent, it is noted that it is not a required ingredient in the composition, i.e. "with or without ester functional hardener" (col.3, lines 54-55).

In the amendment filed 10/31/03, applicants argued that there is no motivation to combine Cooper with Meyer given that Meyer only discloses the use of ammonium thiosulfate with urea formaldehyde not with resol-type phenol resin as presently claimed.

While Meyer does disclose the use of ammonium thiosulfate with urea formaldehyde in example 7, this is only one preferred embodiment of Meyer. It is noted that, "applicant must look to the whole reference for what it teaches. Applicant cannot merely rely on the examples and

argue that the reference did not teach others.” *In re Courtright*, 377 F.2d 647, 153 USPQ 735,739 (CCPA 1967). Further, “nonpreferred disclosures can be used. A nonpreferred portion of a reference disclosure is just as significant as the preferred portion in assessing the patentability of claims.” *In re Nehrenberg*, 280 F.2d 161, 126 USPQ 383 (CCPA 1960). A fair reading of the reference as a whole discloses that Meyer teaches the use of sulfur containing compound including ammonium thiosulfate with formaldehyde containing resins wherein the formaldehyde containing resins include not only urea formaldehyde but also phenol formaldehyde as presently claimed.

Thus, it is the examiner’s position that the combination of Cooper with Meyer is proper.

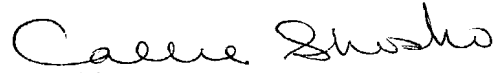
Further, it is noted that Cooper do disclose the use of filler in addition to resole and powdered magnesium oxide. However, while it is recognized that the phrase “consisting essentially of” narrows the scope of the claims to the specified materials and those which do not materially affect the basic and novel characteristics of the claimed invention, absent a clear indication of what the basic and novel characteristics are, “consisting essentially of” is construed as equivalent to “comprising”. Further, the burden is on the applicant to show that the additional ingredients in the prior art, i.e. filler, would in fact be excluded from the claims and that such ingredients would materially change the characteristics of the applicant’s invention, See MPEP 2111.03.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Callie E. Shosho
Primary Examiner
Art Unit 1714

CS

3/11/04